Pursuant to Village Charter Section 3.03 (5) and the Master Plan Section VIII, a five year (5) Capital Improvement Program is developed and updated annually including funding sources. The Master Plan defines capital improvements as non-recurring, financed, physical improvement projects costing at least \$25,000. The Village Master Plan establishes the guidelines for the annual Capital Improvement Program process as follows:

### CAPITAL IMPROVEMENTS

Goal 1 To undertake capital improvements necessary to provide adequate infrastructure and a high quality of life, within sound fiscal practices.

### Objective 1.1 The Annual Capital Improvement Program Process

Achieve annual Village Council use of this Element as the framework to monitor public facility needs as a basis for annual capital budget and five-year program preparation.

### **Policy 1.1.1**

As part of the annual budget process, staff and engineering studies shall form the basis for preparation of a five-year Capital Improvement Program, including one (1) year capital budget, to further the Master Plan elements.

### **Policy 1.1.2**

The Capital Improvement Program shall include a drainage facility improvement/replacement program based upon the 1993 Drainage Master Plan, adopted September 14, 1993. Construction of the system began June 19, 1995 with final completion by October 18, 1997.

### **Policy 1.1.3**

In setting priorities, the following kinds of criteria shall be used by the Village Council; in all cases, financial feasibility or budget impact will be assessed:

- Public Safety Projects: any project to ameliorate a threat to public health or safety
- Quality of Life Projects: any project that would enhance the quality of life, such as a public streetscape improvement project.
- Level of Service or Capacity Projects: any project needed to maintain an adopted or otherwise desirable Level of Service.
- Redevelopment Projects: any project that would assist in the revitalization of deteriorated non-residential properties.
- Biscayne Bay Enhancement Projects: any project which would enhance the environmental quality of Biscayne Bay.

### **Policy 1.1.4**

The Village shall use designated funding mechanisms such as the drainage utility and sewer assessments to the maximum extent feasible thereby freeing up general funds (and general obligation bonds) for such Village-wide projects as park land acquisition and streetscape work as outlined in the policies of other Master Plan elements. A Stormwater Utility Fee was enacted in 1994.

### CAPITAL IMPROVEMENT ELEMENT IMPLEMENTATION SYSTEMS

# A. Five-Year Schedule of Capital Improvements

# B. Other Programs

The other principal programs needed to implement this element are as follows:

- 1. An annual capital programming and budgeting process beginning no later than July of every year and including the use of the project selection criteria contained in Policy 1.1.3; related thereto will be the annual review of this element. A capital budget is submitted each year with the annual budget.
- 2. Master Plan adopted by Village Council on September 14, 1993 and a stormwater utility rate was set the same year. Project construction started June 18, 1995 and was completed October 18, 1997.
- 3. June 27, 2006 Council meeting, the Village Council approved Ordinance 2006-6 authorizing construction of the sanitary sewer and water line improvement project. The scope of work according to the Village includes: Installation of the sanitary sewer system (sewer laterals, gravity sewers, manholes, pump station construction (Zone 2/3) and upgrades (Zone 1) and other components) in Zones 1, 2/3 and 4. Replacement of the old asbestos cement water pipes within the sanitary sewer improvement area, and restoration of pavement, landscaping and other areas affected by the installation. The Village awarded the construction of Zone 1 and zone 4 to Metro Equipment Services, Inc. Construction in these zones began in October of 2007. On April 30, 2008, the Village Council approved the contract with Trans Florida Development Corp. for the construction of Zone 2/3 which is estimated to be completed On May 13th, the Village Council approved the December of 2009. agreement with Conquest Engineering for the construction of the reclaimed water distribution system.
- 4. Amendments to the existing Land Development Code to assure conformance to the "concurrency" requirements relative to development

orders, levels of service and public facility timing as outlined in item C below.

# C. Monitoring and Evaluation

The Village Manager or designee shall annually prepare a status report on this Capital Improvement Program for submittal to the Village Council. The primary purpose is to update the five-year schedule including the basis for the next year's capital budget. The project evaluation criteria shall be used in the project list review and special attention shall be devoted to maintenance of the level of service standards. This entire evaluation process shall be integrated into the Village's annual budget process. This section of the 2009 budget addresses the Master Plan requirement.

# D. Concurrency Management

Concurrency Management shall be implemented as articulated in Land Use Element Policy 2.14 and Capital Improvement Element Policy 1.4.1.

### RELATIONSHIP BETWEEN OPERATING & CAPITAL BUDGETS & FISCAL IMPACT

The Village of Key Biscayne prepares a separate Capital Improvement Program from the Operating General Fund Budget, however, the two (2) budgets are linked. The operating budget provides funding for most capital projects and will carry the operating impacts of those projects once constructed. Operating and maintenance costs are reviewed with each of the capital projects. The operating budget of the Capital Improvement Fund as distinguished from the General Fund Operating Budget, is a multi-year financial plan for the acquisition, expansion or rehabilitation of infrastructure, capital assets, or productive capacity of Village services. The Capital Outlay, along with the Capital Improvement Program is developed along with the annual operating budget. All projects are adopted Goals of the Village Council. A Capital Asset is defined as an asset with a value of more than \$25,000 and a useful life of over three (3) years. Some exceptions may be made to this rule for practical reasons. When the operating impact of the capital outlay are analyzed, the Capital Plan appears to place very limited burden on the operating budget.

# Capital Projects typically apply to the following:

- Expenditures which take place over two (2) or more years requiring continuing appropriations beyond a single fiscal year;
- Systematic acquisition over an extended period of time; and
- · Scheduled replacement or maintenance of specific elements of physical assets.

Revenues for the Capital Budget derive primarily from current annual operating revenues. The Capital Improvement Budget, unlike the operating Budget, is a five year plan which is updated annually. Only those projects scheduled during the first year of the plan are financed and adopted as part of the Village's Annual Operating Budget. The Capital Outlay appropriation, upon adoption of the budget, is transferred to the Capital Improvement Fund in accordance with Resolution 95-26 adopted July 25, 1995. Funds remain in this account and on the books until the project is completed or closed, and do not need to be re-appropriated every year. No property tax increase has been

# CAPITAL IMPROVEMENT PROGRAM

FISCAL YEAR 2009

required to fund Debt Service requirements since the Village's inception. The Fiscal Year 2009 adopted property tax rate of \$3.2 per \$1,000 assessed valuation remained the same as Fiscal Year 2008.

### THE VILLAGE CIVIC CENTER

I. Introduction. A Village Civic Center was discussed as early as 1992. A center is included and

discussed in the early drafts of the 1995 Comprehensive Plan. The first significant action taken by the Village Council to establish a center was the acquisition, development and dedication of the 9.5 acre Village Green in 1995. The Civic Center includes a Recreation Center, Administration/Police Building, Fire Station and a Council Chamber/Community Theater Building and related site and street improvements. A site plan showing the location of these buildings is attached to this report.

II. Planning Process. In mid December, 1997, the Village Council held a three day public participatory planning design. The session provided our citizens with the opportunity to shape the vision for the Civic Center. A summary of the session, including a proposed site plan, was presented to the Council on January 28, 1998. At the 1998 Goals session held March 11, 1998, the Village Council unanimously adopted a motion to begin planning for the replacement of the Public Safety Complex (Police and Fire Departments in trailers). Resolution 98-21 authorized the replacement of the Public Safety Complex on April 28, 1998. Resolution 98-19 retained OBM Miami, Inc. to provide consulting services for the Capital Improvement Program. In response to Resolution 98-21, three (3) separate contracts, which involved the preparation of conceptual and schematic building plans for the civic center with OBM Miami, Inc., were approved at the May 12, 1998 meeting. On September 1, the architect presented a second Civic Center Site Plan and conceptual schematic plans for the emergency services complex. Resolution 98-52 adopted October 13, 1998, authorized the architect to proceed with design development (Phase II).

In November 1998, the Village received the 1998 Community Relations Award for improved communications with our community from the Florida Government Communications Association (FGCA) for the planning design session.

On February 9,1999, the Village Council adopted Resolution 99-14 which designated the Civic Center's a Top Priority Goal for the next year. A third set of site plans were included in the Civic Center report which were presented at the April 6, 1999 workshop. At the June 8 meeting, the Council adopted Site Plan B (Resolution 99-57) as a guide for the development of a Civic Center. A workshop was held

January 18, 2000 to review the building schematics, projected costs, financing plan, and design guidelines. On June 6, 2000, the Village Council adopted the 2000 Goals and Objectives (Resolution 2000-23) which listed the Civic Center as a top priority. Another workshop was held June 13, 1999 to further refine the plans for each of the structures.

### III. Site Plan B- Modified

The Village Civic Center, geographically located in the center of the Village, will become the heart of the community: where residents can meet their friends and where community events can be scheduled. The plan emphasizes a pedestrian friendly environment with tree-lined streets and sidewalks located in a manner that embraces the "New Urbanism" concept. The buildings are located close to the streets, parking lots and on-street spaces will be used throughout the day by different users of the Civic Center. Thereby, reducing the amount of asphalt.

As part of the Site Plan, a section of W. McIntyre Street will be realigned with Galen Drive. This realignment, originally recommended in the Comprehensive Master Plan, will improve safety for pedestrians and result in a better flow of traffic. The new north-south Village Green Way will connect W. Enid Drive with the Village Green.

Site Plan B Modified was adopted by Resolution 2000-7, February 8, 2000. This plan rescinded the previous plan adopted December 7, 1999. The revised plan has a median between Crandon Boulevard and Village Green Way, relocation of the Fire Station to Crandon Boulevard and McIntyre Street, and the Administration/Police Building to McIntyre Street and Fernwood Road in addition to other minor site adjustments.

Site Plan B was again modified with the adoption of Resolution 2000-28, July 11, 2000. The modification added 13,066 of usable square foot area to the overall Master Plan with the elimination of the median dividing McIntyre Street and the relocation of the planned theater to the north. Thirteen (13) additional on-street parking spaces will be added. The modification significantly reduced the infrastructure cost associated with the realigned West McIntyre Street. Traffic circulation throughout the site should be improved. As an added benefit the proposed modification to the Civic Center Master Plan will add approximately 8,982 sq. ft. to the site of the Village Administration/Police Facility. This additional sq. ft. area will allow for the development of the Administration building to be accomplished within two stories, in lieu of the proposed 3-story building. Reducing the massing of the building will lessen the construction cost of this facility. The

additional square foot area should also facilitate access from the proposed Civic Center parking structure and will lead to additional parking spaces. The Civic presence of the Village Administration/Police facility is increased as it now fronts the Civic Center Green between the Crandon Blvd. and Village Green Way.

On March 6, 2001, the Village Council approved Resolution 2001-23 which amended the Site Plan to include a partial subterranean garage containing approximately 104 spaces below the Recreation Center. On April 10, 2001, Resolution 2001-28 was approved which further amended the Civic Center Master Plan by: moving the Village Council/Theater Building to 580 Crandon Boulevard, expanding the Recreation Center site to include the previous Village Council/Community Theater site and including a swimming pool. The latter adjustment resulted in the Recreation Center being relocated to the former Village Council/Community Theater site. This provided space to place a 6-8 lane swimming pool with a separate area for seniors and toddlers and removing the building from being partially located in the Village Green Park.

# IV. Acquisition

Two (2) contracts to purchase the SunTrust property and 560 Crandon Boulevard have been executed. The 560 Crandon property (2.068 acres) was acquired September 21, 2000 at a cost of \$3,255,000. The SunTrust property (2.173 acre) will be acquired in 2001 at a cost of approximately \$3,492,500. Pursuant to Council Resolution 2001-6, negotiations are underway to acquire the 580 Crandon Boulevard property. The latter parcel is the last site that is necessary to complete the Civic Center Project.

# V. Public Safety Complex (Existing Trailers)

The original temporary public safety complex was dedicated November 30, 1994. A portion of the complex consists of temporary, portable trailer units, and has a projected use of 5-7 years. These sections of the facility are rapidly deteriorating. Since, 1992 and including 2000, the annual goals and objectives included the replacement of the facility.

### VI. Fire Station

Design for the Fire Station began September 1, 1998 when Village Council authorized the Architect to begin Phase I Schematic Design (\$12,360). Phase II, Design Development, was authorized by Resolution 98-52 on October 13, 1998 (\$32,750). Immediately following Phase II approval, Phase III, Construction Documents, was authorized on April 20, 1999 by Resolution 99-33 (\$70,240).

Programming for the facility expanded to include fire administrative offices and community meeting rooms. Approval for the additional 4,300 sq. ft. design was granted on July 11, 2000.

Developed as a two-story 25,238 sq. ft. facility, the new fire station makes the most of valuable land resources in Key Biscayne. The Fire Station has been designed as a four-bay, drive through apparatus room with living and support facilities for 12 onduty fire personnel. An open courtyard connects the fire administration facilities, including a community room, with the fire station. The community room will be used for public safety classes such as CPR, as well as emergency training sessions for the firefighters and paramedics. This room will also function as a temporary Council Chamber until the permanent theater building is constructed.

The second floor living area includes 12 dormitories, a kitchen and dining room, classroom, library space, workstations, a day room with an outdoor terrace, as well as, laundry, restroom and shower facilities for the on-duty personnel. The second floor administrative area contains a reception area, restrooms, a conference room, storage space and office space for the Fire Chief, Deputy Fire Chief, and Administrative Assistant. The attic space has been utilized for mechanical and telecommunications equipment, as well as auxiliary storage space.

The architectural character of the building is expressed through its standing seam metal roof, double wood fascia and rafters, and cast stone coping and trim. The elements were inspired by Florida vernacular architecture. The corner watch tower reminiscent of the hose towers required in historical fire stations, serves as the elevator and access tower for the facility. The Fire Station was occupied September 2003.

# VII. Recreation Center and Below Grade Parking Garage

Planning for the Recreation Center is being coordinated by a local citizens committee. The initial report was prepared on September 10, 1996. The committee and the Village Council have held two (2) workshops directed by an outside facilitator. At the workshops, approximately 53 people expressed their opinions with overwhelming support for a Recreation Center. The committee prepared, distributed and compiled a questionnaire which was sent to all residents. This was the third community-wide survey. The results, which were supportive, were submitted to the Village Council at their May 13, 1997 Council Meeting. On May 27, 1997, the Council authorized a planning design session in fall at a cost not to exceed \$15,000. A local newspaper poll, reported June 12, 1997, indicated a two

to one majority favoring the construction of a Recreation Center. A planning design session was conducted by the Village on December 11, 13 and 14, 1997.

The Village Council adopted Resolution 98-56 on November 17, 1998 authorizing the Village Manager to advertise for Request for Qualifications (RFQ) from architectural firms to design our Recreation Center. A draft RFQ packet was sent to the Selection Committee for review on November 30, 1998. The revised RFQ packet was made available to the public on December 8, 1998. An advertisement appeared in the Daily Business Review on December 8th, 10th, 15th, 17th, 22, and on January 4th 1999 requesting qualifications from architectural firms interested in the community center project. Ten responses were accepted on January 8th, 1999.

The Selection Committee met on January 14th, 1999 to receive copies of the submittals and rating sheets to score the ten firms. On January 28, 1999, the Selection Committee met to "short list" the top five architectural firms. The Committee interviewed the top five architectural firms on March 4, 1999. Council Resolution 99-20, adopted April 20, 1999, authorized the Village Manager to negotiate with Robert G. Currie Partnership for architectural and engineering services for the Recreation Center. Council Resolution 99-62 was adopted and approved on July 22, 1999. A \$100,000 state grant will offset a portion of this fee and the contract was executed July 27, 1999. Resolution 2000-39 was adopted on July 24, 2000 which authorized the Village Manager to execute a new agreement for the design of the center at a cost of \$360,000. Staff is negotiating a revised contract as a result to design changes that were approved in Resolution 2001-9.

The Recreation Center consists of a two-story building of approximately 38,000 square feet. The facility will provide a variety of multipurpose rooms to allow for program spaces. The floor plan and design provides for possible future modifications as new needs are established. The building is sited between the Village Green, McIntyre Street, Village Green Way and Fernwood. The primary entrance and drop-off is located adjacent to the traffic circle. The entrance lobby includes a reception desk which provides visual control to people entering and leaving the building, views of the wellness center, snack bar, covered porch, stair, the toddler's room, and center corridor. Active areas are located on the first floor which include the gymnasium that contains a full size basket ball court with movable bleachers and subdivided for two half-courts by a suspended curtain. Additional active areas are the teen center game, youth and toddler's, dance and aerobic rooms. Elevator and locker/toilet rooms are centrally located. Additional space is provided for offices, mechanical, storage and circulation.

Handicap access is designed on the east side next to the main entrance.

The second floor provides space for the more quiet and less active spaces. The space includes a craft room with kiln, and a computer room. Additional space is provided for a senior's lounge and flexible meeting room, a common lounge with access to a balcony overlooking the Village Green and a warming kitchen complete the main functions on the second floor. Other areas include offices, storage, stair, elevator and circulation spaces. A 6-8 lane swimming pool will be constructed between the terrace and the Village Green Park. A parking garage will be located below the building providing approximately 104 spaces.

The exterior walls will be constructed of C.M.U. or concrete with stucco finish and simulated coquina at the base. A standing seam metal room will be constructed with wills for air conditioning and mechanical equipment. Detailing, windows, and colors conform to the design standards that are being used in the other buildings in the Civic Center.

The Community Center was opened on November 1, 2004.

# VIII. Village Administrative Offices and Police Station

Resolution 99-10 adopted February 9, 1999 authorized the Village Manager to prepare an RFQ for architects interested in designing the Police Administrative Offices facility. At the April 20, 1999 meeting, Council appointed five (5) members to serve on the committee to assist the Manager with the selection of the architect. The RFQ was dated June 4, 1999 and mailed June 18, 1999. The twenty-one (21) proposals were returnable on July 16th, 1999. The committee short-listed six (6) firms at the July 28, 1999 meeting. The committee reviewed the proposals at their August 10th meeting. Three of the six firms were ranked. This facility is envisioned to house the police department's, the fire department's and the Village's administrative offices. This facility will also serve as the Village's Emergency Operations Center (EOC), in the event of a disaster. Resolution 99-78 authorized the Village Manager to negotiate a contract with Spillis, Candela & Partners, Inc. Resolution 99-97 adopted December 7, 1999 approved their contract and appropriated \$29,261 for schematic architectural plans. With the adoption of the modified Master Plan in July, the contract with Spillis, Candela & Partners was amended to permit the firm to revise the schematic plan presented at the June 13, 2000 and July 11, 2000 workshops and prepare a revised, two story site plan. A fee of \$15,000 was authorized to revise the previous schematic design. The final contract in the amount of \$409,200 was also authorized by Resolution 2000-29 adopted July 11,

2000. Resolution 2000-49 adopted September 12, 2000 approved the new two-story schematic plans. The architect was directed to proceed with design development and construction documents.

The Building contains 33,138 square feet of air-conditioned program area on two floors. A 52 space parking lot is immediately to the south of the building. The offices are designed around a two-story courtyard with a water fountain and sitting areas. The courtyard functions both as a public gathering space and as a means to provide natural light and air to the internal facing office areas. The main entrance is from McIntyre Street.

The ground floor contains the police station floor area and is raised five feet above grade in order to comply with the flood criteria. The second floor of the building contains the administrative offices for the Village Manager, Village Clerk, Building, Recreation, Finance and Chamber of Commerce. Access to the second floor is from an elevator which is located to the rear of the courtyard or from stairs in the front of the building. The latter of which has been architecturally integrated into the facade in a manner which re-enforces the Florida Vernacular design of the building.

The architectural design of the building creates a unified appearance although the administrative and police functions provide very different services. The police areas will read: from the outside the same as the administrative offices; that of a Village -scaled office building. The windows and wall treatments will be consistent for both uses combining a palette of smooth stucco walls, framed window openings and standing seam metal roofs. These building materials are consistent with all of the proposed civic complex projects. A double-height loggia and covered porches along scale addressing the Recreation Center to the north and the future Theater/Council Chamber building. Village Hall was opened on December 1, 2002.

# IX. Off-Site Improvements

The Village Manager was authorized by Resolution 99-100, December 7, 1999 to enter into an agreement for Spillis, Candela, and Partners to prepare civil engineering and electrical plans for the Village Civic Center at an estimated cost of \$75,000. Plans and specifications for the relocation of West McIntyre Street between Crandon Boulevard and Fernwood Road, the design of all new interior roadways within the complex, reconstruction of a portion of Crandon Boulevard, realignment of Galen/West McIntyre Street and the relocation of existing utilities

along West McIntyre Street are part of the current contract. New lighting and landscaping for all new interior roadways within the complex and any required luminaire relocation along Crandon Boulevard are part of this contract.

### X. Urban and Architectural Guidelines

To insure that the Civic Center is designed in a uniform and consistent manner, the Village Council adopted urban and architectural guidelines by Resolution 2000-7, February 8, 2000. The guidelines include but not limited to landscape, buildings, walls, roofs, doors, windows, and street signage. Guidelines were presented and reviewed at the January 18, 2000 workshop.

### XI. Financing Plan

The Council held nine (9) sessions to develop a long-term borrowing plan to finance the Civic Center project. At the November 17, 1998 Council meeting Councilmember Fein suggested the Village take advantage of the current low, long-term interest rates. Our financial advisor discussed various financing options at the December 8, 1998 meeting including refinancing the Village Green. A five-year financial projection was requested by Councilmember Oldakowski of the Village Council at the January 12, 1999 Council meeting. The first plan was included with the January 19, 1999 agenda for the Council Goals and Objectives Workshop. It included estimated revenues, expenditures and borrowing projections, debt limits and the estimated amount to be borrowed. At the March 9, 1999 Council meeting, a second, more refined plan was distributed to the Council.

The Village Council discussed the comprehensive Civic Center report at the April 6th workshop. The report defined the need and reasons for the proposed Civic Center, building components, status of two land acquisitions, proposed Civic Center master site plans, costs and a third financing plan. By consensus the Council requested a thirty (30) year borrowing plan.

At the April 20, 1999 Council Meeting, borrowing options were again discussed including financing the Civic Center with or without refinancing the Village Green and for thirty- (30) year period. At the May 11, 1999 meeting, the Council discussed the amount and the length of time for the borrowing. Financing issues discussed included the amount, length of time for the loan and the option of refinancing the Village Green. These issues were summarized in a May 17th report, Village Civic Center Financing Plan, discussed at the May 18th Workshop. At this workshop Council directed staff to prepare an ordinance to borrow \$10 million. A \$10 million, 20-year borrowing Ordinance (99-6) was approved at the June 22, 1999 Council

meeting. Resolution 99-71, adopted on July 23, 1999, authorized the twenty-year bank loan at a 4.715% fixed rate. The Capital Improvement Program Facilities Reserve has approximately \$2.95 million.

The second \$10 Million Bond Ordinance 2000-8 financing traunche was adopted July 11, 2000. Three (3) bids were received October 10, 2000; the lowest interest rate submitted by First Union National Bank in the amount of 5.24% for a 20 year bank loan. Resolution 2000-57 adopted October 24, 2000 authorized the bank loan.

### XII. Florida Department of Management Services

Resolution 99-50 adopted May 11, 1999 authorized the Manager to negotiate a contract with the Department of Management Services to provide project management services. The contract was executed on August 2, 1999. The (DMS) Division of Building Construction shall provide project management services for the Civic Center at a monthly fee of \$6,000. The Division shall assist the Village through the entire construction process: planning, designing, building, contract negotiations, construction and occupancy. The division will serve as the Village's agent during the project management process. This includes coordination of the design services of the architect and engineer, the coordination of the design and construction reviews, the selection and negotiation of the construction manager and the construction project. The division shall assign a Project Director for the project, and the project director and the Village shall select a construction manager. The contract was approved by Resolution 99-68, adopted July 20, 1999. The contract was renegotiated due to changes in the scope of the community center, fire station, and the addition of the parking garage. On July 11, 2000, The Council adopted Resolution 2000-29 which authorized the contract to be increased to \$10,000. The Department lowered the amount to \$6,000 retroactive December 6th by amendment to the contract.

# XIII. At-Risk Construction Manager (James A. Cummings, Inc.)

The Florida Department of Management Services published a Request for Proposal on September 3, 1999 for a Construction Manager to build the Civic Center project. The Construction Manager is to provide pre-construction and construction phase services under a guaranteed maximum price to construct the Civic Center complex. This includes the Recreation Center, Fire Station and Police and Village Offices and related infrastructure. Ten (10) firms submitted their credentials for the Construction Manager. A committee consisting of the 3 architects, 2 representatives from the Florida Department of Management Services and the

Village staff assisted as non-voting members to review the firms credentials, October 1, 1999. Five (5) firms were short listed for interviews. The interviews and a ranking were held November 1, 1999. The Council appointed James A. Cummings, Inc. as the Construction Manager on November 16, 1999 with the adoption of Resolution 99-98. The firm was authorized to proceed with the preconstruction phase of the contract at a cost not to exceed \$113,190.

# XIV. Community Center Construction Program Manager (Skyline Management Group, Inc.)

The Village of Key Biscayne published a Request for Proposal for a construction manager for the Community Center Project. The Village received credentials from two firms. At their January 28, 2003 Council Meeting, the Village Council unanimously appointed Skyline Management Group, Inc. as Construction Program Manager (Owner's Representative) for the project.

### XV. Construction Schedule.

On April 10, 2001, the Village Council approved Resolution 2001-29 which directed the Village Manager to begin the mobilization and site preparation work for the Administration/Police Building and Fire Station. This work began on April 30, 2001. It is expected the Fire Station was completed September 2002 and Administration/Police Building in December 2002. The Recreation Center was completed October 2004 and was officially opened November 1, 2004.

**MISSION STATEMENT:** To maintain, manage, plan and enhance drainage systems to safeguard public health and control flooding while protecting our waterways. To work cooperatively to respond to the community's need by providing reliable, professional and cost effective services.

**GOAL:** The Stormwater Utility is addressing the needs of maintaining the stormwater systems to remove stormwater at peak levels for which the system was designed, addressing the needs to improve the quality of water being discharged into Biscayne Bay and area canals in accordance with our Master Plan, solving the local drainage problems and all flooding in these areas.

### INTRODUCTION

In 1987, the United States Congress amended the Clean Water Act to require the Environmental Protection Agency to develop regulations for the permitting of stormwater discharges into the waters of the United States of America. Dade County enacted a County-wide Stormwater Utility Ordinance, 91-66 in 1991. The Village Council of Key Biscayne passed Resolution 92-23 on June 9, 1992, which authorized the Village to withdraw from the Metro-Dade Stormwater Utility. Village Ordinance 93-11 created the Key Biscayne Stormwater Utility Fund effective June 22, 1993.

### STORMWATER UTILITY RATE AND BILLING PROCESS

The utility rate was established by Council on October 12, 1993 with the adoption of Resolution 93-46 and an Administrative Order was executed by the Village Manager on the same date. The billing rate established is \$5.00 per each Equivalent Residential Unit (E.R.U.) per month. A condominium unit was assigned one (1) E.R.U. or \$5.00 per month and a single family residential unit was assigned one and one-half (1 ◆) E.R.U.'s or \$7.50 per month. The commercial rate is determined at one E.R.U. for each 1,083 square feet.

The Council by Resolution 93-44 adopted October 12, 1993 also authorized the Miami-Dade Water and Sewer Department to perform the billing and collection of the stormwater utility fee. This service was authorized by Ordinance 93-11, adopted on June 22, 1993 and Ordinance 93-11-A adopted October 12, 1993. Resolution 93-44 approved by the Council on October 12, 1993, authorized the Mayor to execute the agreement. The Inter-local Agreement with the County was approved by the Board of County Commissioners on July 26, 1994 (R-1235-94). Cost to the Village is 87 ● per bill. The first charges were mailed in August of 1994. Income from the stormwater billing was estimated at approximately \$480,000 per year. The fees authorized as part of the 1985 Growth Management Act (F.S. 403.0893).

### NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)

The Village executed an Inter-local Agreement, as per Resolution 92-31 passed on July 14, 1992, with Metro-Dade County for the Department of Environmental Resource Management (DERM) to perform the necessary tasks associated with the compliance

of the National Pollution Discharge Elimination System (NPDES). A two (2) part permit application was required. The agreement is dated December 15, 1992. The initial contribution was \$8,750 for the first part. Resolution 93-27-A, adopted June 22, 1993, authorized the Village to continue with DERM as a joint-permittee for the second part of the process. The second Inter-local Agreement was approved and executed by Metro-Dade on July 12, 1994 for a five (5) year period or until November 16, 2000, at a cost of \$4,200 annually. It is cost effective and prudent for the Village to continue under the terms of this Inter-local Agreement in order to comply with the regulations. The agreement was extended by Resolutions 2000-44 adopted August 29, 2000. A second agreement was authorized by Resolution 2000-60, December 5, 2000 which provides for the control of discharges until November 16, 2000 but may be extended 25 years by mutual consent.

### **LEVEL OF SERVICE**

A major condition affecting the proposed design of the Stormwater System is the low elevation of the area to be drained, combined with tidally-controlled groundwater. This combined with the intense existing development with no available major retention/detention area, limited the drainage system options. The other major consideration was to develop a system that was affordable to the Village. Based on these considerations a "level of service" was developed to define these parameters. The stormwater design has been developed by evaluating the amount of rainfall that will fall on a given area within a specific time period. This is the intensity of rainfall that a drainage system is designed to accommodate. This intensity is usually expressed as units of inches of rainfall per hour or the inches of rainfall over a one (1), two (2), or three (3) day period.

The rainfall intensities are categorized within an average occurrence interval. This is expressed in a fixed number of years per occurrence, such as a five-year storm which means that from the rainfall data, this storm will occur on an average of once in every five (5) years. Because this in only an average, it does not mean that once this storm occurs it will be another five (5) years before another storm of this magnitude will occur. It is quite possible that two (2) or more such magnitude storms could even occur in a single year.

This intensity of rainfall per the average years of occurrence is called the design storm. Therefore, a five-year design storm is the intensity of rainfall expected to occur on an average of once in five (5) years. The design objective was to remove water from the public right-of-way within 12 hours of the five-year design storm.

From this combination of parameters, especially intensity and frequency, the level of service for the drainage system was developed for the area west of Crandon Boulevard. The level of service is as follows based on the project cost:

DESIGN STORM - 5 YEAR					
Drainage Area Assumption	Flooding Duration - Hours				
Minor Runoff Private Property	4 <u>+</u>				
Major Runoff Private Property	8 <u>+</u>				
Full Runoff Private Property	11 <u>+</u>				

This is to say that the design storm will be evacuated from the streets within a 4 to 11 hour period. The Village had set a level of expectation of "within" 24 hours. This level of service is based on the drainage wells handling the total stormwater discharge. This system, however, has an overflow capability into eleven existing positive drainage outfalls, discharging directly into Biscayne Bay, after flowing through a pollution control structure. Therefore, these flooding durations could be less based on the ability to overflow into these existing outfall systems.

Although the design storm is based on a once in a five (5) year average, the intensity of lesser occurring storms does not cause major reduction in the rainfall intensity. Therefore, these conditions could occur with minor reductions in the flooding after lesser storms.

If a greater level of service were desired, then the drainage system would have had to be upgraded. Our Engineers estimate that, if the system pipe sizes are increased a single size, the flooding issue would reduce from 4 to 11 hours, to 1 to 4 hours and the cost of the system would increase by over \$2.5 million. The above project description of the level of service was discussed in a letter dated April 18, 1994 by Williams Hatfield & Stoner.

The Village of Key Biscayne's stormwater system received its biggest test on June 8, 1997 when the Village was bombarded by 16 inches of rain in a span of 24 hours. Sam Houston, meteorologist at the National Oceanic and Atmospheric Administration on Virginia Key and Village resident, said "It was the most rain I'd seen in 24 hours since I lived out here". In addition, Houston commended the Village's stormwater system by saying that portions of the system that were up and running seemed to have been effective in preventing excess flooding. "The stormwater system had a pretty good test and seems to have served well".

There are a couple of reasons why the system functions so well. The first and primary reason is that the average well is disposing 4500 gallons per minute per foot of head. This is significantly higher than 5 year storm design level which was estimated at only 1000 gallons per minute per foot of head. The second reason is the overflow weirs to the ocean. Before the rainwater has a chance to reach a very high level, outfall weirs

dispose the stormwater into the sea.

### FLOODPLAIN MANAGEMENT PLAN

A Floodplain Management Plan has been completed to address the problem of repetitive loss properties; to improve the Village •s ability to cope with flood hazards and problems; and to gain further points in the Community Rating System for flood insurance coverage. The plan prioritizes proposed project improvements. The plan was prepared with a \$40,000 State of Florida Department of Community Affairs Emergency Management Preparedness and Assistance Trust Fund (EMPATF) grant which the Village secured competitively in March 1997. The Council adopted Resolution 97-31, May 13, 1997 which authorized contracts enabling work to start at on May 27, 1997. A local citizen Advisory Committee has reviewed planning proposals and made recommendations to the Village Manager. The Plan was submitted to the Council April 28, 1998. Resolution 98-18, adopted the plan at the same meeting.

### **CONSTRUCTION PROJECT**

The stormwater project cost is approximately \$10 million. The revenue was derived from a bank loan of \$7.2 million, a direct \$1.5 million contribution from the General Fund authorized February 9, 1995, a \$750,000 grant from the 1995 U.S. Department of Commerce, Economic Development Administration, a 1996 \$167,000 grant from the South Florida Water Management District and interest income.

The project was started on the east side of Crandon Boulevard and began on June 19, 1995 and was completed March 1, 1996. The second phase west of Crandon Boulevard was started January 8, 1996 and was completed October 18, 1997. In conjunction with the stormwater project, Miami-Dade Water and Sewer Department replaced approximately \$1.5 million of existing water mains at their cost. In addition to the above \$7.2 M contracts additional drains were installed along portions of Fernwood Road and all of East Enid Drive.

### 1999 STORMWATER UTILITY REVENUE BOND SERIES

The \$7.2 million Stormwater Revenue Bond Anticipation Notes were originally issued April 11, 1995, extended in 1997 and 1998. Ordinance 98-9 adopted October 27, 1999 authorized the issuance of \$7.2 million of Stormwater Utility Revenue Bonds for the purpose of providing permanent funding for the project.

YEAR	ORDINANCE	RESOLUTION	RATE	
1995	95-3	95-11	4.89%	
1997	97-9	97-11	4.52%	
1998	98-2	98-06	4.32%	

Bids were received and opened January 8, 1999. Council by motion accepted the low bid by NationsBank at a fixed annual rate of 4.13% for 20 years at the January 12, 1999 meeting. Resolution 99-9 adopted January 26, 1999 approved the sale of bonds to NationsBank. The bonds mature October 1, 2019. Interest is payable January, April, July and October beginning April 1, 1999 on the outstanding balance. The principal is due annually each October 1st. The payments shall be from the stormwater utility fees and from a covenant to budget and appropriate from legally available Non-Ad Valorem revenues. As of September 30, 2008, the outstanding debt will be \$5,200,000.

### LOCAL MITIGATION STRATEGY

Resolution 98-38 authorizes the execution of an interlocal agreement with Miami-Dade County wherein the Village agrees to actively participate in the preparation of a County-wide unified Local Mitigation Strategy (LMS) which addresses not only flooding hazards but all hazards to which Key Biscayne and the County are prone. In consideration for such participation, the Village receives an award of \$30,000.

FISCAL YEAR 2009 BUDGET

# **Debt Service Schedule**

# **Total Annual Debt Payment Schedule**

# STORMWATER FUND

	Loan Balance	Principal	Interest	Fiscal Year Total
Year	\$7,200,000			
1999	\$7,065,000	135,000.00	74,951.01	\$209,951.01
2000	\$6,940,000	125,000.00	291,784.50	\$416,784.50
2001	\$6,810,000	130,000.00	286,622.00	\$416,622.00
2002	\$6,625,000	185,000.00	281,253.00	\$466,253.00
2003	\$6,430,000	195,000.00	273,612.50	\$468,612.50
2004	\$6,225,000	205,000.00	265,559.00	\$470,559.00
2005	\$6,010,000	215,000.00	257,092.50	\$472,092.50
2006	\$5,785,000	225,000.00	248,213.00	\$473,213.00
2007	\$5,550,000	235,000.00	238,920.50	\$473,920.50
2008	\$5,200,000	350,000.00	229,215.00	\$579,215.00
2009	\$4,835,000	365,000.00	214,760.00	\$579,760.00
2010	\$4,450,000	385,000.00	199,685.50	\$584,685.50
2011	\$4,045,000	405,000.00	183,785.00	\$588,785.00
2012	\$3,620,000	425,000.00	167,058.50	\$592,058.50
2013	\$3,175,000	445,000.00	149,506.00	\$594,506.00
2014	\$2,710,000	465,000.00	131,127.50	\$596,127.50
2015	\$2,220,000	490,000.00	111,923.00	\$601,923.00
2016	\$1,705,000	515,000.00	91,686.00	\$606,686.00
2017	\$1,165,000	540,000.00	70,416.50	\$610,416.50
2018	\$595,000	570,000.00	48,114.50	\$618,114.50
2019	\$0	595,000.00	24,573.50	\$619,573.50

Coupon: 4.136% per annum, \$7,200,000, Stormwater Construction Facilities, Series 1999, Nationsbank, N.A.

# FISCAL YEAR 2009 BUDGET

Revenues	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Operating Revenue	\$528,049	\$543,379	\$543,379	\$543,379	\$530,000	\$543,379	\$543,379	\$543,379	\$543,379
Interest Income General Fund Contributions	\$64,826 \$0	\$57,423 \$0	\$56,183 \$0	\$54,143 \$0	\$30,000 \$0	\$48,186 \$0	\$38,297 \$0	\$27,753 \$0	\$16,239 \$0
General Fund Contributions	20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenues	\$592,875	\$600,802	\$599,562	\$597,522	\$594,655	\$591,565	\$581,676	\$571,132	\$559,618
<u>Expenditure</u> s									
Administrative Costs	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
Repair & Maintenance	\$80,000	\$80,000	\$90,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Pump Station Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Principal and Interest	\$468,613	\$470,559	\$472,093	\$473,213	\$473,921	\$579,215	\$579,760	\$584,686	\$588,785
Total Expenditures	\$618,613	\$620,559	\$632,093	\$643,213	\$643,921	\$749,215	\$749,760	\$754,686	\$758,785
Revenue Over									
(Under) Expenditures	(\$25,738)	(\$19,757)	(\$32,531)	(\$45,691)	(\$49,266)	(\$157,650)	(\$168,084)	(\$183,554)	(\$199,167)
Beginning Fund Balance	\$941,140	\$915,402	\$895,645	\$863,114	\$817,423	\$768,157	\$610,507	\$442,423	\$258,869
Ending Fund Balance	\$915,402	\$895,645	\$863,114	\$817,423	\$768,157	\$610,507	\$442,423	\$258,869	\$59,702
Revenues	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	18 Year Totals
Operating Revenue	\$543,379	\$543,379	\$543,379	\$543,379	\$543,379	\$543,379	\$543,379	\$543,379	\$9,222,113
Interest Income	\$3,745	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$418,071
General Fund Contributions	\$155,250	\$280,500	\$280,500	\$348,650	\$204,380	\$359,200	\$367,930	\$225,630	\$2,222,040
Total Revenues	\$702,374	\$823,879	\$823,879	\$892,029	\$747,759	\$902,579	\$911,309	\$769,009	\$11,862,224
F			•			•			
Expenditures Administrative Costs	\$70.000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$60,000	\$1,180,000
Repair & Maintenance	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$1,180,000
Pump Station Replacement	\$100,000	\$100,000	\$150,000	\$150,000	\$100,000	\$150,000	\$150,000	\$100,000	\$600,000
Principal and Interest	\$592,059	\$594,506	\$596,128	\$601,923	\$606,686	\$610,417	\$618,115	\$619,574	\$9,530,253
Fillicipal and interest	\$372,037	\$374,300	φJ70,120	\$001,723	\$000,000	\$010,417	\$010,113	\$017,574	\$7,550,255
Total Expenditures	\$762,059	\$764,506	\$916,128	\$921,923	\$776,686	\$930,417	\$938,115	\$779,574	\$12,960,253
Revenue Over									
(Under) Expenditures	(\$59,685)	\$59,373	(\$92,249)	(\$29,894)	(\$28,927)	(\$27,838)	(\$26,806)	(\$10,565)	(\$1,098,029)
Beginning Fund Balance	\$59,702	\$17	\$59,390	(\$32,859)	(\$62,753)	(\$91,680)	(\$119,518)	(\$146,324)	\$941,140
Ending Fund Balance	\$17	\$59,390	(\$32,859)	(\$62,753)	(\$91,680)	(\$119,518)	(\$146,324)	(\$156,889)	(\$156,889)

### Assumptions:

- $1.\ \$7,\!200,\!000\ Stormwater\ Utility\ Revenue\ Bonds\ issued\ for\ 20\ years\ at\ a\ fixed\ rate\ of\ 4.136\%.$
- 2. Operating revenue is based on additional units only. No fee increases or new units are anticipated to occur after FY 2004.
- 3. A reserve is established for replacement of the pump stations.
- 4. Deficits are projected to start to occur in FY 2014.

### Available Options to Reduce the GF Contribution or Repay the Fund:

- 1. Increase the Stormwater Fees by the CPI factor.
- 2. Repay the GF with interest after the Bonds are retired in FY 2019.

# SOLID WASTE AND RECYCLING COLLECTION AND DISPOSAL FUND

FISCAL YEAR 2009

MISSION STATEMENT: To provide a comprehensive, service oriented residential solid waste management service.

**GOAL:** To provide a comprehensive, responsive, efficient and effective residential solid waste collection program by providing curbside pick-up and recycling, and delivery to an approved disposal site, to prevent health and safety hazards and protect the environment.

### **BACKGROUND**

The Village Council first reviewed the solid waste and recycling collection and disposal services for single family residences provided by Metro-Dade County at the March 25, 1993 Council meeting. The intent to transfer the service from Dade County was included in Goals and Objectives established by the Village Council on two (2) separate occasions. The transfer was permitted by the Metro-Dade transitional inter-local agreement, Section III-A, executed December 30, 1992.

In accordance with Village Goals and Objectives, on October 26, 1993 Council approved a contract, submitted October 19, 1993, to study the cost of providing single-family residential solid waste and recycling collection services. The study analyzed the then current annual fee (\$399) levied by Metro-Dade County as compared to an undetermined fee of a Village private contractor. In anticipation of providing this service, in accordance with the inter-local agreement, the Village presented the County a transfer notice on April 1, 1994. Council discussed the collection program over the next several months.

### FIRST FIVE-YEAR CONTRACT

On May 10, 1994, Council authorized staff to draft a Request for Proposal (RFP). The RFP was advertised in the Miami Daily Business Review on June 29 and 30, and July 1, 1995, with a pre-bid conference on July 8, 1995. Six (6) private contractors and the City of Miami submitted proposals on July 22, 1994. On August 24, 1994, a committee of local municipal officials interviewed all contractors, developing a four (4) contractor short-list. Village Council, via Resolution 94-46, adopted December 22, 1994, awarded the contract to Industrial Waste Services, Inc. (presently known as BFI). All parties executed the five (5) year contract on December 30, 1994, with services beginning on January 2, 1995. This contract ended December 31, 1999.

### RATE SCHEDULE AND BILLING

Adopted April 11, 1995, Ordinance 95-4 authorized Village Council to set fees for solid waste and recycling collection and disposal services. On April 11, 1995, Resolution 95-9 established the annual fee at \$199 per year, which is one of the lowest annual solid waste and recycling fees in Miami-Dade County. This fee reduction translated into a \$200 annual savings for Village residents. Ordinance 96-3, adopted April 9, 1996, established a 5% late fee, 1/2% monthly interest charge, and a 10% lien fee for delinquent bills.

YEAR	2007 2008		2009	
Starting Fund Balance	\$290,780	\$290,780	\$290,780	
Revenue	544,820	538,238	639,055	
Contract Expenses	514,008	514,008	631,737	
Admin. Expenses	4,000	2,000	2,000	
Uncollectable Accounts	26,312	22,230	5,308	
Total Expenses	544,320	538,238	639,055	
EOY Net Inc./loss	0	0	0	
EOY Balance	290,780	\$290,780	\$290,780	

EOY: End of Year

### SINGLE FAMILY HOME SERVICE

The Village program consists of garbage, yard waste, bulky waste, and recyclable collection and disposal from single-family homes. The county provides a home chemical collection program and dead animal pick-up. BFI provides the following services for approximately 1,289 single-family homes within the Village:

- -Garbage and Yard Trash collection Bulk Waste collection once per month twice a week
- Recyclable collection once per week Residential dumpster 24 hours per day
- Special collections \$12.00 per cubic yard, upon request

### **SECOND FIVE-YEAR CONTRACT**

Resolution 99-28, adopted April 20, 1999 directed the Manager to issue a Request for Proposal (RFP) for soliciting bids for solid waste haulers. Letter dated May 10, 1999 to BFI Inc. in accordance with section 2.2 of the contract stated the non-renewal of the agreement by the Village. The advertisement appeared in the Miami Business Review on July 1, 1999. On July 8, 1999 the Village held a pre-bid meeting to discuss the Solid Waste and Recycling Collection Request for Proposal. Waste Management, Inc. and BFI Waste Management of North America, Inc. submitted RFPs on July 22, 1999.

A memorandum dated August 17, 1999 to the Village Council from the Manager recommended a five (5) year contract be awarded BFI Waste Systems of North America provided the annual refuse fee is increased to \$220 from \$199. Resolution 99-74 (September 9, 1999 authorized the Village Manager to negotiate a new five-year contract. Resolution 99-81 (October 12, 1999) set the fee at \$220 per year. Ordinance 99-8 (October 26, 1999) approved the five (5) year agreement and the contract was executed October 26, 1999.

### THIRD CONTRACT

A Request for Proposal was issued by the Village on October 13, 2004 for solid waste haulers.

# SOLID WASTE AND RECYCLING COLLECTION AND DISPOSAL FUND

FISCAL YEAR 2008

The Village held a pre-bid conference on November 1, 2004 to discuss the solid waste and recycling Request for Proposal. Three bids were received on November 24, 2004. Bids were received from BFI of North America, Waste Management, Inc. and Global Waste Inc. On December 7, 2004, a motion was made by the Village Council to extend the BFI contract for one month. The Village Manager recommend at the January 25, 2005 Council Meeting that Waste Management, Inc. be awarded the bid for Solid Waste Services. The Village Council selected Waste Management, Inc. as the new service provider.

Beginning January 1, 2005, a new type of side-yard pick up service was initiated at a fee of \$420 per household. In Fiscal year 2009, this fee was increased to \$495 per household.

### **FUND DESCRIPTION**

The Solid Waste and Recycling Collection and Disposal Fund is a self-supporting enterprise fund intended to recover all contractual expenditures to provide residential refuse services.

### **REVENUES**

The \$638,055 revenue represents the total of all billed single-family homes (1,289) at \$495 per residence less \$5,308 for uncollectible. Fees were increased due to escalations in the contract with Waste Management Inc.

### **EXPENDITURES**

The line item for administrative expenses covers administrative personnel costs, billing and collection costs, supply costs and uncollectible fees. The remaining generated funds are utilized for public information material, special collections, and other administrative expenditures.

ENTERPRISE FUND - SOLID WASTE RECYCLING COLLECTION FUND								
Description	Actual FY 2003	Actual FY 2004	Adopted FY 2005	Adopted FY 2006	Adopted FY 2007	Adopted FY 2008	Adopted FY 2009	
Operating Revenue	\$292,000	\$284,900	\$545,162	\$545,162	\$544,320	\$537,238	\$638,055	
Interest Income	4,000	1,071	0	500	500	1,000	1,000	
Total Revenues	\$296,000	\$285,971	\$545,162	\$545,662	\$544,820	\$538,238	\$639,055	
Expenditures								
Contractual Services <sup>1</sup>	\$263,789	\$255,196	\$514,008	\$514,008	\$514,008	\$514,008	\$631,747	
Administrative Costs	15,000	3,978	4,000	4,000	4,000	2,000	2,000	
Uncollectable Accounts	0	0	27,154	27,154	26,312	22,230	5,308	
Total Expenses	278,789	259,173	\$545,162	545,162	\$544,320	\$538,238	\$639,055	
Estimated Fund Balance	\$166,084	\$192,882	\$192,822	\$192,822	\$192,822	\$192,822	\$192,822	

<sup>1.</sup> Contractual Services is solid waste and recycling collection and disposal contract with BFI Waste Systems of North America.

MISSION STATEMENT: TO FINANCE AND CONSTRUCT SANITARY SEWER COLLECTION AND TRANSMISSION FACILITIES TO SERVE THE AREAS OF THE COMMUNITY

# **Sanitary Sewer Improvement Fund**

A Sanitary Sewer Improvement Fund was created by Ordinance 98-10, adopted October 27, 1998 within the enterprise funds of the Village. The purpose of this fund is to provide financing to construct this project with a special assessment on the served property owners and a contribution from the General Fund. The project will serve the 706 homes on Key Biscayne that do not have a municipal sanitary sewer available to them. Ordinance 99-3, adopted April 20, 1999, authorizes the special assessment process. Ordinance 99-9 authorizes the State Loan and Resolution 99-92 approved the project. Resolution 2001-35 adopted May 8, 2001 authorized the project to proceed and approved the assessment procedures. After completion of construction, the sanitary sewer system will be maintained and operated by the Miami-Dade Water and Sewer Department in accordance with an inter-local agreement. After twenty (20) years, the system will be sold to the County for a nominal fee.

# 1. Reasons for Sanitary Sewers

The following are some of the reasons why Village Councils, since the incorporation of the Village have decided that the present sanitary sewer collection system should be expanded to those areas not provided by a municipal sanitary sewer collection system. These reasons were discussed and developed by the area residents on several occasions.

a. The 1995 Master Plan, adopted by the Village and approved by the State of Florida after extensive workshops and public discussion, mandates that a sanitary sewer system be made available to all areas being served by a septic tank, on or before the year 2008.

According to a statement from Mr. Kenneth B. Metcalf representing the State of Florida Department of Community Affairs at the Village Council Meeting of November 9, 1999:

- "...If an attempt is made to change the Plan, the Plan would be found in non-compliance" ... "If the Village goes forward, does not connect and does not change the Plan, the law gives citizens the ability to challenge development orders that are issued. That could include expansion of houses and any permit that would rely on septic tanks."
- b. Because of the Village's high water table and the poor water absorption characteristics of its soil, septic tanks may contaminate the environment after heavy rains, with effluents rising to the surface and otherwise contributing to ocean and bay pollution. This fact was discussed in The Islander News article of March 25, 1999. In the same issue, Mr. Samir Elmir, State Health Department Administrator for Miami-Dade County, made the following statement, "a sewer system is better for a community than a septic system because it pumps the sewage away for treatment rather than treating it locally. It is safer and much better system." Mr. Elmir also discussed the subject at the November 9, 1999 Council Meeting where he stated that: "... soil conditions on Key Biscayne are not proper for septic tanks...the set back to the surface water is very close to Biscayne Bay and the coastline"... " Anything more than one septic tank per 5 acres must be considered relatively high density and would impact the water quality in the area."... "The State of Florida has jurisdiction to fully implement the septic tank program but they do not enforce any type of program to insure that the system is functioning properly"...

"There are a lot of old systems on Key Biscayne and some have water levels 6 inches above the gravel. In contrast when a NEW permit is issued on Key Biscayne, the new systems are mounded 3 feet above the natural ground level".

"... Random samples were taken...after heavy rain from standing water. One was taken from an area served by sewer and one from an area served by septic systems. The levels of fecal coloforms were very high in the area served by septic systems in comparison with the areas served by sewer. This is an indication that human or warm-blooded animal waste has been contaminating the water. Harmful pathogens are present in the water."... "Having a sewer system is a cleaner solution and it will protect the environment. From a public health standpoint, a sewer system is the appropriate system."... "If you are on septic, any addition to your existing home is almost impossible."

- c. There is a potential for loss of real estate values for those homes/lots not served by a municipal sanitary sewer system. New home sizes may have to be reduced due to a larger drain-field installation. (In 1986 the drain-field area requirement for a four-bedroom dwelling was 125 S.F.; in 1995 it was 1,142 S.F.).
- d. The financial impact of the system on the residents is relatively short-term. It is likely to represent an investment that will be returned in the form of increased property values over a relatively short time, particularly if major home improvements are contemplated;
- e. State Health Department regulations with respect to septic tank maintenance, repair and replacement are subject to constant amendment. The regulatory environment and the regulations are becoming more and more restrictive, resulting in a higher and higher cost of compliance; and
- f. The Florida Department of Environmental Protection (DEP) has made available an extraordinary opportunity to encourage the construction of the sanitary sewer system by providing pre-construction, construction and long term (20-year) financing at 2.56% interest for the total capital cost of the project. There is no assurance, if the Village does not avail itself of this financing, that a comparable opportunity to build and finance the system will be available at this rate in the future.

# 2. SERVICE AREA

The limits of the project areas are: Ocean Drive the East; Biscayne Bay to the West; West Heather Drive to the North; and West Mashta Drive to the South (see attached map)

### 3. Comprehensive Plan

A citizen survey in 1993 reported that the extension of the sanitary sewer system was supported by a majority of those respondents replying to the survey. The Comprehensive Plan, adopted in 1995 (Ordinance 95-8) requires a central sanitary sewer to all of the community by the year 2008. It is part of the Capital Improvement element of the plan. More specifically, future Land Use Policy 2.1.1 states that:

"... The Village shall cooperate with the County in an attempt to complete a financial and engineering plan to extend sanitary sewers to as much of the remaining un-sewered areas as is financially and otherwise desirable. The intent is to complete that plan as soon as

technically and financially feasible but not later than 1998 and to begin implementation as soon as technically, and financially feasible and complete implementation no later than 2008 ..."

The State of Florida Department of Community Affairs (DCA) noted that the collection system is part of the settlement agreement between the Village and DCA in their June 12, 1995 letter to the Village. The Village request was 2014. Other DCA communications, including its letters of February 5, 1998 and February 18, 1998, urge the Village to proceed with its sewer program as included in its Master Plan. Finally, it should be noted that the program is also consistent with the Florida Coastal Management Program.

# 4. GOALS AND OBJECTIVES OF VILLAGE COUNCILS

Since incorporation in 1991, Village Councils have adopted Goals and Objectives on nine (9) separate occasions. On each occasion the construction of a sanitary sewer collection system was included as one of the Council goals and given a high priority. In addition, specific sanitary sewer workshops were held each year since 1996.

# 5. MIAMI-DADE COUNTY

- a. Secured Miami-Dade County Environmental Quality Control Board (EQCB) approval, on a class basis, for an extension of up to 10 years plus an additional hardship extension for up to another 5-year to connect to the system and abandon the existing septic systems (June 12, 1997).
- b. Pursuant to this approval, the homeowner is required to connect to the collection system immediately when one or more of the following conditions occur:
  - (1) Failure of property's existing septic tank system occurs;
  - (2) Improvements or repairs to a property exceed 50% of its value; or
  - (3) A change in property ownership occurs.
- c. County Resolution #1164-98 adopted October 26, 1998 approved an interlocal agreement providing for the operation and maintenance of the system by the Miami-Dade County Water and Sewer Department. The system will be leased for a period of 20 years; then sold to the County for a nominal payment. Resolution 98-45 adopted August 25, 1998 authorizes the Village Manager to execute the agreement. (The wastewater from the proposed collection system will be transmitted to the central district combined wastewater treatment plant for treatment on Virginia Key.)

### 6. FLORIDA HEALTH DEPARTMENT

A letter dated April 20, 1999 to the Village Manager from the Village Attorney indicates that the Florida Department of Health will not take any action to interfere with the Sanitary Sewer connection timetable which has been approved by the Miami-Dade County DERM and the Miami-Dade County Environmental Quality Control Board pursuant to Board Order No. 97-49. The Board order states the Village residents shall have ten (10) years to connect to the sanitary sewer line unless:

- a. Failure of a property's existing septic tank system occurs;
- b. Improvements or repairs to a property exceed 50% of its value; or
- c. A change in property ownership occurs.

This information was submitted to the Village Council in a memorandum dated April 23, 1999 from the Village Manager.

# 7. ENGINEERING PLANS FOR COLLECTION AND TRANSMISSION SYSTEM

A motion was passed at the September 12, 1995 meeting authorizing the preparation of an RFQ for a Master Plan for the sanitary sewer project. At its February 24, 1998 meeting, Council adopted the 1997 Sanitary Sewer Feasibility Study and Master Plan prepared by C.A.P. Engineering, Inc., which was presented to the Council November 11, 1997.

At its March 10, 1998 meeting the Village Manager was authorized to retain the engineering firm of PBS & J to prepare plans and specifications for the sewer project at a cost not to exceed \$400,000.

At its March 31, 1998 meeting the Council, by motion, agreed to construct a sanitary sewer collection system. PBS & J submitted the preliminary design report to the Council August 25, 1998.

The sanitary sewer system construction will consist of the installation of approximately 39,000 linear feet of gravity sewers, approximately 1,885 linear feet of force mains, one (1) new 30 HP pump station, upgrading (1) pump station to 15 HP, and providing service laterals to the right-of-way line for approximately 706 addresses. The entire system discharges into a proposed 24" Force Main along

Crandon Boulevard. This force main extension connects to the existing main sewer system at Crandon Boulevard and Harbor Drive.

# 8. WATERLINE REPLACEMENT PROGRAM

During the construction of the stormwater system the county utility department (Miami-Dade Water & Sewer Department) replaced approximately \$1.5 million cement asbestos water pipes at no cost to the community.

If the existing water system is replaced simultaneously by the same contractor who is installing the sanitary sewer, a cost reduction is possible. The potential cost reductions relate to maintaining, relocating and repairing the existing water line during the installation of the new sewer system. There is a potential costs savings in mobilization and interest costs if the work is awarded to the same contractor.

### 9. 2005 Status

After the November 2, 2004 election, the Village stands to receive approximately \$5.1 million dollars from the County's General Obligation Bond Program. The Village is working with the Miami-Dade Water and Sewer Department and the County Manager's office for funding for the asbestos water pipes. A workshop to discuss the Sanitary Sewer Project took place on January 18, 2005. At the November 22, 2005 Council Meeting, PBS&J updated the project estimate to \$9.5M – \$10.5M.

# 10. 2006 Status

The Village is set to receive \$5.6 Million from the General Obligation Bond for this project. The Village is working closely with the County with the replacement of the water pipes. PBS&J has updated the plans and revised cost estimates for the entire project. The Village has hired the Firm of Estrada Hinojosa to serve as the Financial Advisor for this project. The sanitary sewer project is estimated at close to \$20 million. The project is scheduled to begin in the summer of 2007. The Miami-Dade County Water and Sewer Department (WASD) and the Village of Key Biscayne will be partners in the first alternative water supply project in Miami-Dade County. "Purple pipes" to provide reclaimed water for irrigation in public areas will be installed in conjunction with new sanitary sewers and replacement mains for potable water. Treated wastewater will be transported in a new water main to Key Biscayne once the proposed reuse plant at the Central District Treatment Plant on Virginia Key is in service. The Links at Crandon Park public golf course at the north end of the island also will be irrigated with reclaimed water.

Updated estimated costs of \$20,223,000 for simultaneous construction of both sewers and water pipes were presented at the June 27, 2006 Village Council meeting by Lourdes Abadin of Estrada Hinojosa, the Village's Financial Advisor for

the project. This number includes updated construction costs as well soft costs for hiring a project manager and public relations firm (7% of construction costs). The combined sanitary sewer estimate of \$11,770,000 represents 58.2% of the cost; the combined water pipe estimate of \$8,453,000 represents 41.8% of the cost. The actual costs will be determined by the Village Council based upon the contract for project construction awarded as a result of a competitive bidding process. Confirmed outside funding for the sewer element consists of \$5,100,000 (Miami-Dade County GOB) and \$964,300 (US EPA grant). The estimated funding shortfall is \$5,705,700. The County has committed to pay \$6,000,000 for water pipe replacement. This results in a funding shortfall of \$2,453,000 for the water pipe element.

# 11.2007 Status

June 27, 2006 Council meeting, the Village Council approved Ordinance 2006-6 authorizing construction of the sanitary sewer and water line improvement project. The scope of work according to the Village includes: Installation of the sanitary sewer system (sewer laterals, gravity sewers, manholes, pump station construction (Zone 2/3) and upgrades (Zone 1) and other components) in Zones 1, 2/3 and 4. Replacement of the old asbestos cement water pipes within the sanitary sewer improvement area, and restoration of pavement, landscaping and other areas affected by the installation. The Village awarded the construction of Zone 1 and zone 4 to Metro Equipment Services, Inc. Construction in these zones began in October of 2007.

The Miami-Dade County Water and Sewer Department (WASD) and the Village of Key Biscayne will be partners in the first alternative water supply project in Miami-Dade County. "Purple pipes" to provide reclaimed water for irrigation in public areas will be installed in conjunction with new sanitary sewers and replacement mains for potable water. Treated wastewater will be transported in a new water main to Key Biscayne once the proposed reuse plant at the Central District Treatment Plant on Virginia Key is in service. The Links at Crandon Park public golf course at the north end of the island also will be irrigated with reclaimed water.

### 12. 2008 Status

The Village awarded the construction of Zone 1 and zone 4 to Metro Equipment Services, Inc. Construction in these zones began in October of 2007. On April 30, 2008, the Village Council approved the contract with Trans Florida Development Corp. for the construction of Zone 2/3 which is estimated to be completed December of 2009. On May 13<sup>th</sup>, the Village Council approved the agreement with Conquest Engineering for the construction of the reclaimed water distribution system.